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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Comprehensive Assessment Information Rule
REPORTING FORM

09 JUL 10 PM 2:44
OFFICE

When completed, send this form to:

Document Processing Center
Office of Toxic Substances, TS-790
U.S. Environmental Protection Agency
401 M Street, SW
Washington, DC 20460
Attention: CAIR Reporting Office

For Agency Use Only:

Date of Receipt: _____

Document
Control Number: _____

Docket Number: _____

CAIR REPORTING FORM CHECKLIST

THIS CHECKLIST IS NOT REQUIRED TO BE SUBMITTED,
IT IS FOR RESPONDENT'S INTERNAL USE ONLY

This form is intended to gather information on a specific listed substance that is manufactured, imported, or processed at one facility. Respondents must answer only those sections or specific questions required in the CAIR rule.

Respondents may use the same form each time they must report. The original copy of the form received by respondents should be kept on file and used to make copies of the questions required to be answered. These copies may then be circulated to those employees who will complete the form. Respondents must submit only one copy of each question rather than compiling parts of each question from various employees and submitting them together as one question.

Respondents need only supply information on the form that is "known to or reasonably ascertainable by" the respondent. Refer to the glossary for this definition. All reports with incomplete responses will be assessed as invalid and a Notice of Noncompliance Error Letter and a copy of the question will be sent to you for completion.

Before completing any portion of this form, please read the instruction booklet. The booklet contains general instructions on how to comply with the rule, supplemental instructions and sample answers for many questions, and a glossary containing definitions of key terms. Refer to the glossary whenever an unknown term appears to examine the definition provided.

If you cannot determine your reporting obligations, you should call the TSCA Assistance Office, U.S. EPA, at (202) 554-1404. To obtain additional forms, write to the TSCA Assistance Office (TS-779), ATTN: CAIR Form Request, Office of Toxic Substances, Environmental Protection Agency, Room E-543, 401 M St., SW, Washington, DC 20460, or call at (202) 554-1404.

BEFORE RETURNING YOUR COMPLETED CAIR FORM PLEASE CHECK THE FOLLOWING:

- ☐ 1. Have you completed and included Section 1 for each form you are submitting?
- ☐ 2. Have you submitted a standard chemical name and Chemical Abstract Service Registry Number for each chemical you are reporting on?
- ☐ 3. Does your submitted form include the original certification signatures as required for questions 1.06, 1.07, and 1.08?

- ____ 4. Have you submitted a completed separate form for each substance you are required to report on?
- ____ 5. Have you submitted a completed separate form for each site at which you manufacture, import, or process a listed substance?
- ____ 6. For each listed substance you must report on, have you reported on all activities you engage in at each site using the listed substance on the same reporting form?
- ____ 7. If you are claiming information as Confidential Business Information (CBI), have you completed the CBI substantiation form in Appendix II of the form for each category containing CBI? Failure to submit a completed CBI substantiation form with a reporting form containing CBI will result in the waiver of your claim of confidentiality.
- ____ 8. For each question that you are required to answer, have you responded by either providing the data, stating not applicable ("N/A"), or, if the question permits, stating unknown ("UK")?
- ____ 9. Have you right justified your responses to questions asked that require respondents to give a numeric response in a series of boxes (e.g., the answer "372" is entered as [0][0][3][7][2])?
- ____ 10. Have your responses been given in alpha, numeric or alpha-numeric form such as 3 million or 3,000,000? Responses must not be given in scientific notation such as 3×10^6 .
- ____ 11. If you needed additional space to report the required data, have you checked the continuation sheet box at the bottom of each page that requires additional space; attached additional copies of the specific questions of this form that contain additional information; and listed the attachments in Appendix I of the reporting form?

SECTION 1 GENERAL MANUFACTURER, IMPORTER, AND PROCESSOR INFORMATION

PART A GENERAL REPORTING INFORMATION

1.01 This Comprehensive Assessment Information Rule (CAIR) Reporting Form has been completed in response to the Federal Register Notice of.....
CBI mo. day year

☐ a. If a Chemical Abstracts Service Number (CAS No.) is provided in the Federal Register, list the CAS No. - -

b. If a chemical substance CAS No. is not provided in the Federal Register, list either (i) the chemical name, (ii) the mixture name, or (iii) the trade name of the chemical substance as provided in the Federal Register.

(i) Chemical name as listed in the rule

(ii) Name of mixture as listed in the rule

(iii) Trade name as listed in the rule

c. If a chemical category is provided in the Federal Register, report the name of the category as listed in the rule, the chemical substance CAS No. you are reporting on which falls under the listed category, and the chemical name of the substance you are reporting on which falls under the listed category.

Name of category as listed in the rule

CAS No. of chemical substance - -

Name of chemical substance

1.02 Identify your reporting status under CAIR by circling the appropriate response(s).

CBI Manufacturer 1

☐ Importer 2

Processor ③

X/P manufacturer reporting for customer who is a processor 4

X/P processor reporting for customer who is a processor 5

☐ Mark (X) this box if you attach a continuation sheet.

1.03 Does the substance you are reporting on have an "x/p" designation associated with it in the above-listed Federal Register Notice?

CBI

☐ Yes ☐ Go to question 1.04

☐ No ☒ Go to question 1.05

1.04 a. Do you manufacture, import, or process the listed substance and distribute it under a trade name(s) different than that listed in the Federal Register Notice? Circle the appropriate response.

CBI

☐ Yes 1

☐ No 2

b. Check the appropriate box below:

☐ You have chosen to notify your customers of their reporting obligations

Provide the trade name(s)

☐ You have chosen to report for your customers

☐ You have submitted the trade name(s) to EPA one day after the effective date of the rule in the Federal Register Notice under which you are reporting.

1.05 If you buy a trade name product and are reporting because you were notified of your reporting requirements by your trade name supplier, provide that trade name.

CBI

☐ Trade name Mondur TD80

Is the trade name product a mixture? Circle the appropriate response.

Yes 1

No (2)

1.06 Certification -- The person who is responsible for the completion of this form must sign the certification statement below:

CBI

☐ "I hereby certify that, to the best of my knowledge and belief, all information entered on this form is complete and accurate."

Stanley L. Sutkowski

NAME

SIGNATURE

DATE SIGNED

Manager of Plant Engineer

TITLE

(716) 427 - 7200

TELEPHONE NO.

☐ Mark (X) this box if you attach a continuation sheet.

- 1.07 Exemptions From Reporting -- If you have provided EPA or another Federal agency with the required information on a CAIR Reporting Form for the listed substance within the past 3 years, and this information is current, accurate, and complete for the time period specified in the rule, then sign the certification below. You CBI ☐ are required to complete section 1 of this CAIR form and provide any information now required but not previously submitted. Provide a copy of any previous submissions along with your Section 1 submission.

"I hereby certify that, to the best of my knowledge and belief, all required information which I have not included in this CAIR Reporting Form has been submitted to EPA within the past 3 years and is current, accurate, and complete for the time period specified in the rule."

_____ NAME	_____ SIGNATURE	_____ DATE SIGNED
_____ TITLE	(_____) _____ TELEPHONE NO.	_____ DATE OF PREVIOUS SUBMISSION

- 1.08 CBI Certification -- If you have asserted any CBI claims in this report you must certify that the following statements truthfully and accurately apply to all of those confidentiality claims which you have asserted.

CBI ☐ "My company has taken measures to protect the confidentiality of the information, and it will continue to take these measures; the information is not, and has not been, reasonably ascertainable by other persons (other than government bodies) by using legitimate means (other than discovery based on a showing of special need in a judicial or quasi-judicial proceeding) without my company's consent; the information is not publicly available elsewhere; and disclosure of the information would cause substantial harm to my company's competitive position."

_____ NAME	_____ SIGNATURE	_____ DATE SIGNED
_____ TITLE	(_____) _____ TELEPHONE NO.	

☐ Mark (X) this box if you attach a continuation sheet.

1.09 Facility Identification

1.10 Company Headquarters Identification

☐ Mark (X) this box if you attach a continuation sheet.

[illegible]

CBI Name [S][T][A][N][L][E][Y] [] [S][U][T][K][O][W][S][K][I] [] [] [] [] [] [] [] []
[] Title [P][L][A][N][T] [] [E][N][G] [] [M][A][N][G][E][R] [] [] [] [] [] [] [] []
Address [1][5][5][5] [] [J][E][F][F][E][R][S][O][N] [] [R][D] [] [] [] [] [] [] []
 Street
 [R][O][C][H][E][S][T][E][R] [] [] [] [] [] [] [] [] [] [] [] [] []
 City
 [N][Y] [1][4][6][9][2]--[][][][]
 State Zip
Telephone Number [7][1][6]-[4][2][7]-[7][2][0][0]

1.13 This reporting year is from [0] [1] [8] [8] to [1] [2] [8] [8]
Mo. Year Mo. Year

7


```
CBI   Name of Seller ([ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ]
[ ][ ] Mailing Address ([ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ]
                                Street
([ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ])
                                City
([ ][ ][ )      ([ ][ ][ ][ ][ ][ ))--([ ][ ][ ][ ][ )
                               State          Zip
Employer ID Number .....([ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ]
Date of Sale .....([ ][ ][ ) ([ ][ ][ ) ([ ][ ][ )
                              Mo.    Day     Year
Contact Person ([ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ])
Telephone Number .....([ ][ ][ )-([ ][ ][ )-( [ ][ ][ )
```

[illegible]

8

1.16 For each classification listed below, state the quantity of the listed substance that was manufactured, imported, or processed at your facility during the reporting year.

CBI

☐

Classification

Quantity (kg/yr)

Manufactured N/A

Imported N/A

Processed (include quantity repackaged) 71,500

Of that quantity manufactured or imported, report that quantity:

In storage at the beginning of the reporting year N/A

For on-site use or processing N/A

For direct commercial distribution (including export) N/A

In storage at the end of the reporting year N/A

Of that quantity processed, report that quantity:

In storage at the beginning of the reporting year 9,000

Processed as a reactant (chemical producer) N/A

Processed as a formulation component (mixture producer) N/A

Processed as an article component (article producer) 62,500

Repackaged (including export) N/A

In storage at the end of the reporting year 13,000

☐ Mark (X) this box if you attach a continuation sheet.

1.17 Mixture -- If the listed substance on which you are required to report is a mixture or a component of a mixture, provide the following information for each component chemical. (If the mixture composition is variable, report an average percentage of each component chemical for all formulations.)

[]

Component Name	Supplier Name	Average % Composition by Weight (specify precision, e.g., 45% ± 0.5%)
N/A	N/A	
Total		100%

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 2 MANUFACTURER, IMPORTER, AND PROCESSOR VOLUME AND USE

2.01 State the total number of years, including the reporting year, that your facility has
CBI manufactured, imported, or processed the listed substance.

☐ Number of years manufactured yrs.
Number of years imported yrs.
Number of years processed yrs.

2.02 State the quantity of the listed substance that your facility manufactured, imported,
or processed during the corporate fiscal year preceding the reporting year.

CBI
☐ Year ending ☐ ☐ ☐ ☐
Mo. Year
Quantity manufactured kg
Quantity imported kg
Quantity processed kg

2.03 State the quantity of the listed substance that your facility manufactured, imported,
or processed during the 2 corporate fiscal years preceding the reporting year in
descending order.

CBI
☐ Year ending ☐ ☐ ☐ ☐
Mo. Year
Quantity manufactured kg
Quantity imported kg
Quantity processed kg
Year ending ☐ ☐ ☐ ☐
Mo. Year
Quantity manufactured kg
Quantity imported kg
Quantity processed kg

☐ Mark (X) this box if you attach a continuation sheet.

2.04 State the quantity of the listed substance that your facility manufactured, imported, or processed during the 3 corporate fiscal years preceding the reporting year in descending order.

CBI

☐ Year ending [1][2] [8][7]
Mo. Year

Quantity manufactured kg

Quantity imported kg

Quantity processed 80,000 kg

Year ending [1][2] [8][6]
Mo. Year

Quantity manufactured kg

Quantity imported kg

Quantity processed 65,000 kg

Year ending [1][2] [8][5]
Mo. Year

Quantity manufactured kg

Quantity imported kg

Quantity processed 68,000 kg

2.05 Specify the manner in which you manufactured the listed substance. Circle all appropriate process types.

CBI

☐ N/A

Continuous process 1

Semicontinuous process 2

Batch process 3

☐ Mark (X) this box if you attach a continuation sheet.

2.06 Specify the manner in which you processed the listed substance. Circle all appropriate process types.

- ☐ Continuous process 1
- ☐ Semicontinuous process **2**
- ☐ Batch process 3

2.07 State your facility's name-plate capacity for manufacturing or processing the listed substance. (If you are a batch manufacturer or batch processor, do not answer this question.)

- ☐ Manufacturing capacity 150,000 kg/yr
- ☐ Processing capacity kg/yr

2.08 If you intend to increase or decrease the quantity of the listed substance manufactured, imported, or processed at any time after your current corporate fiscal year, estimate the increase or decrease based upon the reporting year's production volume.

<input type="checkbox"/>	Manufacturing Quantity (kg)	Importing Quantity (kg)	Processing Quantity (kg)
Amount of increase			
Amount of decrease			5,000

☐ Mark (X) this box if you attach a continuation sheet.

2.09 For the three largest volume manufacturing or processing process types involving the listed substance, specify the number of days you manufactured or processed the listed substance during the reporting year. Also specify the average number of hours per day each process type was operated. (If only one or two operations are involved, list those.)

CBI

☐

Days/Year Average
Hours/Day

Process Type #1 (The process type involving the largest quantity of the listed substance.)

Manufactured 250 24 Hrs.
5 days x 50 weeks
Processed _____

Process Type #2 (The process type involving the 2nd largest quantity of the listed substance.)

Manufactured _____
Processed _____

Process Type #3 (The process type involving the 3rd largest quantity of the listed substance.)

Manufactured _____
Processed _____

2.10 State the maximum daily inventory and average monthly inventory of the listed substance that was stored on-site during the reporting year in the form of a bulk chemical.

CBI

☐

Maximum daily inventory _____ kg
Average monthly inventory _____ kg

☐ Mark (X) this box if you attach a continuation sheet.

2.11 Related Product Types -- List any byproducts, coproducts, or impurities present with the listed substance in concentrations greater than 0.1 percent as it is manufactured, imported, or processed. The source of byproducts, coproducts, or impurities means the source from which the byproducts, coproducts, or impurities are made or introduced into the product (e.g., carryover from raw material, reaction product, etc.).

CBI

☐

<u>CAS No.</u>	<u>Chemical Name</u>	<u>Byproduct, Coproduct or Impurity</u> ¹	<u>Concentration (%) (specify ± % precision)</u>	<u>Source of By-products, Coproducts, or Impurities</u>

¹Use the following codes to designate byproduct, coproduct, or impurity:

B = Byproduct
C = Coproduct
I = Impurity

N/A

☐ Mark (X) this box if you attach a continuation sheet.

- 2.12 Existing Product Types -- List all existing product types which you manufactured, imported, or processed using the listed substance during the reporting year. List the quantity of listed substance you use for each product type as a percentage of the total volume of listed substance used during the reporting year. Also list the quantity of listed substance used captively on-site as a percentage of the value listed under column b., and the types of end-users for each product type. (Refer to ☐ the instructions for further explanation and an example.)

CBI

☐

a.	b.	c.	d.
Product Types ¹	% of Quantity Manufactured, Imported, or Processed	% of Quantity Used Captively On-Site	Type of End-Users ²
X	100%		I

¹Use the following codes to designate product types:

A = Solvent	L = Moldable/Castable/Rubber and additives
B = Synthetic reactant	M = Plasticizer
C = Catalyst/Initiator/Accelerator/ Sensitizer	N = Dye/Pigment/Colorant/Ink and additives
D = Inhibitor/Stabilizer/Scavenger/ Antioxidant	O = Photographic/Reprographic chemical and additives
E = Analytical reagent	P = Electrodeposition/Plating chemicals
F = Chelator/Coagulant/Sequestrant	Q = Fuel and fuel additives
G = Cleanser/Detergent/Degreaser	R = Explosive chemicals and additives
H = Lubricant/Friction modifier/Antiwear agent	S = Fragrance/Flavor chemicals
I = Surfactant/Emulsifier	T = Pollution control chemicals
J = Flame retardant	U = Functional fluids and additives
K = Coating/Binder/Adhesive and additives	V = Metal alloy and additives
	W = Rheological modifier
	X = Other (specify) <u>Urethane Foam</u>

Weatherstripping

²Use the following codes to designate the type of end-users:

I = Industrial	CS = Consumer
CM = Commercial	H = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

- 2.13 Expected Product Types -- Identify all product types which you expect to manufacture, import, or process using the listed substance at any time after your current corporate fiscal year. For each use, specify the quantity you expect to manufacture, import, or process for each use as a percentage of the total volume of listed substance used during the reporting year. Also list the quantity of listed substance used captively on-site as a percentage of the value listed under column b., and the types of end-users for each product type. (Refer to the instructions for further explanation and an example.)

CBI

☐

a.	b.	c.	d.
Product Types ¹	% of Quantity Manufactured, Imported, or Processed	% of Quantity Used Captively On-Site	Type of End-Users ²
X	100%	0%	I

¹Use the following codes to designate product types:

A = Solvent	L = Moldable/Castable/Rubber and additives
B = Synthetic reactant	M = Plasticizer
C = Catalyst/Initiator/Accelerator/ Sensitizer	N = Dye/Pigment/Colorant/Ink and additives
D = Inhibitor/Stabilizer/Scavenger/ Antioxidant	O = Photographic/Reprographic chemical and additives
E = Analytical reagent	P = Electrodeposition/Plating chemicals
F = Chelator/Coagulant/Sequestrant	Q = Fuel and fuel additives
G = Cleanser/Detergent/Degreaser	R = Explosive chemicals and additives
H = Lubricant/Friction modifier/Antiwear agent	S = Fragrance/Flavor chemicals
I = Surfactant/Emulsifier	T = Pollution control chemicals
J = Flame retardant	U = Functional fluids and additives
K = Coating/Binder/Adhesive and additives	V = Metal alloy and additives
	W = Rheological modifier
	X = Other (specify) <u>Urethane Foam</u>

Weatherstripping

²Use the following codes to designate the type of end-users:

I = Industrial	CS = Consumer
CM = Commercial	H = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

2.14 Final Product -- Complete the following table for each type of final product manufactured, imported, or processed at your facility that contains the listed substance other than as an impurity.

☐

a.	b.	c.	d.
Product Type ¹	Final Product's Physical Form ²	Average % Composition of Listed Substance in Final Product	Type of End-Users ³
X	F4	0%	I

¹Use the following codes to designate product types:

A = Solvent	L = Moldable/Castable/Rubber and additives
B = Synthetic reactant	M = Plasticizer
C = Catalyst/Initiator/Accelerator/Sensitizer	N = Dye/Pigment/Colorant/Ink and additives
D = Inhibitor/Stabilizer/Scavenger/Antioxidant	O = Photographic/Reprographic chemical and additives
E = Analytical reagent	P = Electrodeposition/Plating chemicals
F = Chelator/Coagulant/Sequestrant	Q = Fuel and fuel additives
G = Cleanser/Detergent/Degreaser	R = Explosive chemicals and additives
H = Lubricant/Friction modifier/Antiwear agent	S = Fragrance/Flavor chemicals
I = Surfactant/Emulsifier	T = Pollution control chemicals
J = Flame retardant	U = Functional fluids and additives
K = Coating/Binder/Adhesive and additives	V = Metal alloy and additives
	W = Rheological modifier
	X = Other (specify) <u>Urethane Foam</u>

Weatherstripping

²Use the following codes to designate the final product's physical form:

A = Gas	F2 = Crystalline solid
B = Liquid	F3 = Granules
C = Aqueous solution	F4 = Other solid
D = Paste	G = Gel
E = Slurry	H = Other (specify) _____
F1 = Powder	

³Use the following codes to designate the type of end-users:

I = Industrial	CS = Consumer
CM = Commercial	H = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

2.15 Circle all applicable modes of transportation used to deliver bulk shipments of the
CBI listed substance to off-site customers.

N/A

- ☐ Truck 1
- Railcar 2
- Barge, Vessel 3
- Pipeline 4
- Plane 5
- Other (specify) _____ 6

2.16 Customer Use -- Estimate the quantity of the listed substance used by your customers
CBI or prepared by your customers during the reporting year for use under each category
of end use listed (i-iv).

N/A

- ☐ Category of End Use
- i. Industrial Products
- Chemical or mixture kg/yr
- Article kg/yr
- ii. Commercial Products
- Chemical or mixture kg/yr
- Article kg/yr
- iii. Consumer Products
- Chemical or mixture kg/yr
- Article kg/yr
- iv. Other
- Distribution (excluding export) kg/yr
- Export kg/yr
- Quantity of substance consumed as reactant kg/yr
- Unknown customer uses kg/yr

☐ Mark (X) this box if you attach a continuation sheet.

2.17 State the quantity of the listed substance that you exported during the reporting
CBI year.

☐ In bulk kg/yr
As a mixture kg/yr
In articles kg/yr

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 3 PROCESSOR RAW MATERIAL IDENTIFICATION

PART A GENERAL DATA

- 3.01 Specify the quantity purchased and the average price paid for the listed substance for each major source of supply listed. Product trades are treated as purchases.
CBI The average price is the market value of the product that was traded for the listed substance.

☐

<u>Source of Supply</u>	<u>Quantity (kg)</u>	<u>Average Price (\$/kg)</u>
The listed substance was manufactured on-site.		
The listed substance was transferred from a different company site.		
The listed substance was purchased directly from a manufacturer or importer.	71,500	2.54
The listed substance was purchased from a distributor or repackager.		
The listed substance was purchased from a mixture producer.		

-
- 3.02 Circle all applicable modes of transportation used to deliver the listed substance to your facility.

☐

- Truck ①
Railcar 2
Barge, Vessel 3
Pipeline 4
Plane 5
Other (specify) _____ 6

☐ Mark (X) this box if you attach a continuation sheet.

3.03 a. Circle all applicable containers used to transport the listed substance to your facility.
CBI

- ☐ Bags 1
Boxes 2
Free standing tank cylinders 3
Tank rail cars 4
Hopper cars (5)
Tank trucks 6
Hopper trucks 7
Drums 8
Pipeline 9
Other (specify) _____ 10

b. If the listed substance is transported in pressurized tank cylinders, tank rail cars, or tank trucks, state the pressure of the tanks.

Tank cylinders mmHg
Tank rail cars mmHg
Tank trucks mmHg

☐ Mark (X) this box if you attach a continuation sheet.

PART B RAW MATERIAL IN THE FORM OF A MIXTURE

3.04 If you obtain the listed substance in the form of a mixture, list the trade name(s) of the mixture, the name of its supplier(s) or manufacturer(s), an estimate of the average percent composition by weight of the listed substance in the mixture, and the amount of mixture processed during the reporting year.

CBI

☐

<u>Trade Name</u>	<u>Supplier or Manufacturer</u>	<u>Average % Composition by Weight (specify \pm % precision)</u>	<u>Amount Processed (kg/yr)</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

N/A

☐ Mark (X) this box if you attach a continuation sheet.

PART C RAW MATERIAL VOLUME

3.05 State the quantity of the listed substance used as a raw material during the reporting year in the form of a class I chemical, class II chemical, or polymer, and the percent composition, by weight, of the listed substance.

☐

	Quantity Used (kg/yr)	% Composition by Weight of Listed Sub- stance in Raw Material (specify \pm % precision)
Class I chemical	71,500	100%
Class II chemical		
Polymer		

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 4 PHYSICAL/CHEMICAL PROPERTIES

General Instructions:

If you are reporting on a mixture as defined in the glossary, reply to questions in Section 4 that are inappropriate to mixtures by stating "NA -- mixture."

For questions 4.06-4.15, if you possess any hazard warning statement, label, MSDS, or other notice that addresses the information requested, you may submit a copy or reasonable facsimile in lieu of answering those questions which it addresses.

PART A PHYSICAL/CHEMICAL DATA SUMMARY

- 4.01 Specify the percent purity for the three major¹ technical grade(s) of the listed substance as it is manufactured, imported, or processed. Measure the purity of the substance in the final product form for manufacturing activities, at the time you import the substance, or at the point you begin to process the substance.

CBI

☐

	<u>Manufacture</u>	<u>Import</u>	<u>Process</u>
Technical grade #1	_____ % purity	_____ % purity	99.5 % purity
Technical grade #2	_____ % purity	_____ % purity	N/A % purity
Technical grade #3	_____ % purity	_____ % purity	N/A % purity

¹Major = Greatest quantity of listed substance manufactured, imported or processed.

- 4.02 Submit your most recently updated Material Safety Data Sheet (MSDS) for the listed substance, and for every formulation containing the listed substance. If you possess an MSDS that you developed and an MSDS developed by a different source, submit your version. Indicate whether at least one MSDS has been submitted by circling the appropriate response.

Yes (1)

No 2

Indicate whether the MSDS was developed by your company or by a different source.

Your company 1

Another source (2)

☐ Mark (X) this box if you attach a continuation sheet.

4.03 Submit a copy or reasonable facsimile of any hazard information (other than an MSDS) that is provided to your customers/users regarding the listed substance or any formulation containing the listed substance. Indicate whether this information has been submitted by circling the appropriate response.

Yes 1

No (2)

4.04 For each activity that uses the listed substance, circle all the applicable number(s) corresponding to each physical state of the listed substance during the activity listed. Physical states for importing and processing activities are determined at the time you import or begin to process the listed substance. Physical states for manufacturing, storage, disposal and transport activities are determined using the final state of the product.

CBI

[]

Activity	Physical State				
	Solid	Slurry	Liquid	Liquified Gas	Gas
Manufacture	1	2	3	4	5
Import	1	2	3	4	5
Process	1	2	(3)	4	5
Store	1	2	(3)	4	5
Dispose	1	2	(3)	4	5
Transport	1	2	(3)	4	5

[] Mark (X) this box if you attach a continuation sheet.

4.05 Particle Size -- If the listed substance exists in particulate form during any of the following activities, indicate for each applicable physical state the size and the percentage distribution of the listed substance by activity. Do not include particles ≥ 10 microns in diameter. Measure the physical state and particle sizes for importing and processing activities at the time you import or begin to process the listed substance. Measure the physical state and particle sizes for manufacturing storage, disposal and transport activities using the final state of the product.

CBI

☐

N/A

<u>Physical State</u>		<u>Manufacture</u>	<u>Import</u>	<u>Process</u>	<u>Store</u>	<u>Dispose</u>	<u>Transport</u>
Dust	<1 micron	_____	_____	_____	_____	_____	_____
	1 to <5 microns	_____	_____	_____	_____	_____	_____
	5 to <10 microns	_____	_____	_____	_____	_____	_____
Powder	<1 micron	_____	_____	_____	_____	_____	_____
	1 to <5 microns	_____	_____	_____	_____	_____	_____
	5 to <10 microns	_____	_____	_____	_____	_____	_____
Fiber	<1 micron	_____	_____	_____	_____	_____	_____
	1 to <5 microns	_____	_____	_____	_____	_____	_____
	5 to <10 microns	_____	_____	_____	_____	_____	_____
Aerosol	<1 micron	_____	_____	_____	_____	_____	_____
	1 to <5 microns	_____	_____	_____	_____	_____	_____
	5 to <10 microns	_____	_____	_____	_____	_____	_____

☐ Mark (X) this box if you attach a continuation sheet.

4.15 Shipment Procedures -- If you use an inhibitor or stabilizer when shipping the listed substance in bulk form, specify its name, whether it inhibits or stabilizes the listed substance, the amount normally added, and the duration of its effectiveness.

CBI

☐

<u>Name of Additive</u>	<u>Inhibitor or Stabilizer¹</u>	<u>Amount Normally Added (ppm or %)</u>	<u>Duration of Effectiveness (specify units)</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

Yes 1
No 2

¹Use the following codes to designate inhibitor and stabilizer:

I = Inhibitor
S = Stabilizer

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 5 ENVIRONMENTAL FATE

PART A RATE CONSTANTS AND TRANSFORMATION PRODUCTS

5.01 Indicate the rate constants for the following transformation processes.

a. Photolysis:

Absorption spectrum coefficient (peak) 871 (1/M cm) at 284 ⁽¹⁾ nm

Reaction quantum yield, ϕ No Information at nm

Direct photolysis rate constant, k_p , at ... $<1.2 \times 10^{-3}$ 1/hr NO₂ Rate latitude
is 0.377/hr. (2)

b. Oxidation constants at 25°C:

For 1O_2 (singlet oxygen), k_{ox} No Information 1/M hr

For RO_2 (peroxy radical), k_{ox} No Information 1/M hr

c. Five-day biochemical oxygen demand, BOD_5 ... N/A due to H₂O reaction mg/l

d. Biotransformation rate constant:

For bacterial transformation in water, k_b ... No Oxygen Consumed 1/hr

Specify culture modified MITI Test (3)

e. Hydrolysis rate constants:

For base-promoted process, k_b No Information 1/M hr

For acid-promoted process, k_a No Information 1/M hr

For neutral process, k_n No Information 1/hr

f. Chemical reduction rate (specify conditions) Not expected

g. Other (such as spontaneous degradation) ... Polyurea formation under
hydrolytic conditions

☐ Mark (X) this box if you attach a continuation sheet.

PART B PARTITION COEFFICIENTS

5.02 a. Specify the half-life of the listed substance in the following media.

<u>Media</u>	<u>Half-life (specify units)</u>
Groundwater	<< 1 day in water solution (4)
Atmosphere	26 hrs. (2)
Surface water	<< 1 day in water solution (4)
Soil	< 1 day (4)

b. Identify the listed substance's known transformation products that have a half-life greater than 24 hours.

<u>CAS No.</u>	<u>Name</u>	<u>Half-life (specify units)</u>	<u>Media</u>
Not Found	Polyurea	> 1 Yr.	in water & soil (4)
95-80-7	2.4 Toluene Diamine	< 1 Day	in Biological waste (4) water treatment
823-40-5	2.6 Toluene Diamine	< 1 Day	in plant
5206-52-0	Urea, NNNN-bis- (3, isocyanato-4-methylphenyl)	UK	in (5,6)

5.03 Specify the octanol-water partition coefficient, K_{ow} ... Reacts with both **at 25°C**

Method of calculation or determination octanol water

5.04 Specify the soil-water partition coefficient, K_d reacts with water **at 25°C**

Soil type _____

5.05 Specify the organic carbon-water partition coefficient, K_{oc} reacts with water **at 25°C**

5.06 Specify the Henry's Law Constant, H reacts with water **atm-m³/mole**

☐ Mark (X) this box if you attach a continuation sheet.

5.07 List the bioconcentration factor (BCF) of the listed substance, the species for which it was determined, and the type of test used in deriving the BCF.

Bioconcentration Factor

Species

Test¹

None detected

Moina Macrocopa Straus

Not defined (4)

None detected

Cyprinus Caprio

¹Use the following codes to designate the type of test:

F = Flowthrough

S = Static

- (1) Phillips and Nachod, eds., Organic Electronic Spectral Data, Vol. IV, pg. 200.
- (2) K.H. Becker, V. Bastian, and Th. Klien, The reactions of Toluenediisocyanate, Toluene diamine, and Methylene dianiline under simulated atmospheric conditions. J. Photochem, and Photobiol, A: Chemistry. 45 (1988) 195-205.
- (3) N. Caspers, B. Hamberger, R. Kanne, and Waklebert, Ecotoxicity of TDI, MDI, TDA, and MDA, Report to International Isocyanates Institute, E-CE-41, 1986. Quoted in D.S. Gilbert, Fate of TDI, and MDI in Air, Soil and Water, Polyurethane World Congress 1987, Proceedings of the SPI/FSK.
- (4) F.K. Brochhagen and B.M. Grierson, Environmental aspects of Isocyanates in water and soil, Cellular Polymers, 3 (1984) 11-17.
- (5) K. Marcali, Microdetermination of Toluenediisocyanate in atmosphere, Anal. Chem. 29 (1957) 552-558.
- (6) G.A. Campell, T.J. Dearlove and W.C. Meluch, Diisocyanatotolyl Urea, U.S. Patent 3,906,019 (1975) Chem Abstract. 84:5645h.

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 6 ECONOMIC AND FINANCIAL INFORMATION

6.01 Company Type -- Circle the number which most appropriately describes your company.

- CBI
- ☒ Corporation ①
- ☐ Sole proprietorship 2
- Partnership 3
- Other (specify) _____ 4

6.02 At the end of the reporting year, were you constructing additional facilities at this site that were not yet in operation at the end of the reporting year, but which are now being used or will be used in the future for manufacturing, importing, or processing the listed substance? Circle the appropriate response.

- CBI
- ☐ Yes 1
- No ②

6.03 List all of the product types that you manufacture that contain the listed substance as a raw material, and the percentage of the name-plate capacity dedicated to the listed substance that each product type represents. The total of all capacity percentiles should equal 100 percent. State the total name-plate capacity of the process type(s) used to manufacture all product types that contain the listed substance.

CBI

Product Type	% Total Capacity
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

State the total name-plate capacity of the process type(s) used to manufacture all product types that contain the listed substance: _____ kg/yr

☐ Mark (X) this box if you attach a continuation sheet.

6.04 For each market listed below, state the quantity sold and the total sales value of
CBI the listed substance sold or transferred in bulk during the reporting year.

☐

<u>Market</u>	<u>Quantity Sold or Transferred (kg/yr)</u>	<u>Total Sales Value (\$/yr)</u>
Retail sales	_____	_____
Distribution -- Wholesalers	_____	_____
Distribution -- Retailers	_____	_____
Intra-company transfer	_____	_____
Repackagers	_____	_____
Mixture producers	_____	_____
Article producers	_____	_____
Other chemical manufacturers or processors	_____	_____
Exporters	_____	_____
Other (specify)	_____	_____
_____	_____	_____

6.05 Substitutes -- List all known commercially feasible substitutes that you know exist
CBI for the listed substance and state the cost of each substitute. A commercially
feasible substitute is one which is economically and technologically feasible to use
in your current operation, and which results in a final product with comparable
performance in its end uses.

☐

<u>Substitute</u>	<u>Cost (\$/kg)</u>
U.K.	_____
_____	_____
_____	_____
_____	_____

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 7 MANUFACTURING AND PROCESSING INFORMATION

General Instructions:

For questions 7.04-7.06, provide a separate response for each process block flow diagram provided in questions 7.01, 7.02, and 7.03. Identify the process type from which the information is extracted.

PART A MANUFACTURING AND PROCESSING PROCESS TYPE DESCRIPTION

7.01 In accordance with the instructions, provide a process block flow diagram showing the major (greatest volume) process type involving the listed substance.

CBI

☐ Process type

SEE ATTACHED

☐ Mark (X) this box if you attach a continuation sheet.

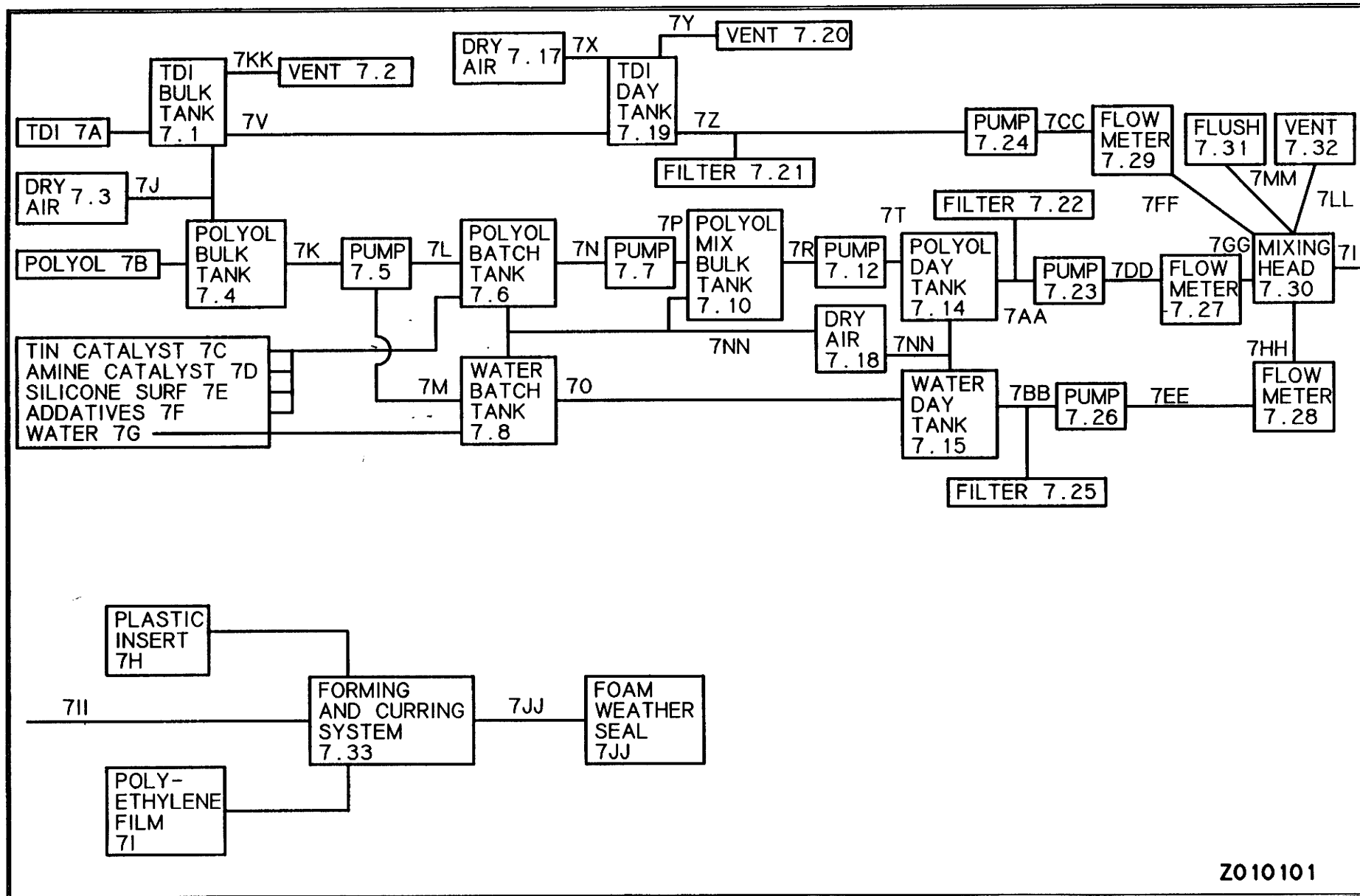
7.02 In accordance with the instructions, provide a separate process block flow diagram showing each of the three major (greatest volume) process types involving the listed substance.

CBI

☐ Process type _____

N/A

☐ Mark (X) this box if you attach a continuation sheet.



7.03 In accordance with the instructions, provide a process block flow diagram showing all process emission streams and emission points that contain the listed substance and which, if combined, would total at least 90 percent of all facility emissions if not treated before emission into the environment. If all such emissions are released from one process type, provide a process block flow diagram using the instructions for question 7.01. If all such emissions are released from more than one process type, provide a process block flow diagram showing each process type as a separate block.

CBI

☐ Process type _____

7.2 TDI Bulk Tank Vent

7.20 TDI Day Tank Vent

7.24 TDI Pumps

7.21 TDI Filters

7.32 Process Ventilation

☐ Mark (X) this box if you attach a continuation sheet.

7.04 Describe the typical equipment types for each unit operation identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type.

CBI

☐ Process type _____

<u>Unit Operation ID Number</u>	<u>Typical Equipment Type</u>	<u>Operating Temperature Range (°C)</u>	<u>Operating Pressure Range (mm Hg)</u>	<u>Vessel Composition</u>
7.10, 7.6, 7.1				
7.4, 7.8	Tank	25	< 775	Steel
7.2	Pipe	25	< 775	Steel
7.3, 7.17, 7.18	Air Dryer	25	4600	Steel
7.24, 7.23, 7.26	Gear Pump	25	2000	Steel
7.5, 7.12	Progressive Cavity Pump	25	3000	Steel
7.7	Diaphragm Pump	25	< 4600	N/A
7.19, 7.14, 7.15	Pressure Vessel	25	1300	Steel
7.20	Vent, Polyflow	25	1300	Polypro.
7.22, 7.21, 7.25	Filters	25	1300	Steel
7.27, 7.28, 7.29	Flow Meters	25	1500	Steel
7.30	Mixing Head	40	0	Steel
7.31	Catch Tub/55 gal. Drum	25	0	Steel
7.33	Proprietary Tooling & Equip.	< 100	0	N/A
7.32	Ventilation System	25	< 1	Steel

☐ Mark (X) this box if you attach a continuation sheet.

7.05 Describe each process stream identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type.

CBI

☐ Process type

Process Stream ID Code	Process Stream Description	Physical State¹	Stream Flow (kg/yr)
7A, 7V, 7Z, 7CC, 7FF	TDI	OL	71,500
7B, 7K, 7L, 7M	Polyol	OL	350,600
7N, 7P, 7R, 7T	Polyol, Catalysts, Surfactants		
7AA, 7DD, 7GG	Additives, Mixture	OL	350,600
7O, 7BB, 7EE, 7HH	Polyol, Water Mixture	OL	60,000
7I	Sheet Polyethylene	SO	482,100
7II	TDI, Polyol Mix, Water Mix	OL	N/A
7H	PVC Extrusion	SO	N/A
7MM	Foam, Methylene Chloride	OL	6,600
7Y, 7KK, 7LL	TDI Vapors	GU	7.15

¹Use the following codes to designate the physical state for each process stream:

GC = Gas (condensable at ambient temperature and pressure)
 GU = Gas (uncondensable at ambient temperature and pressure)
 SO = Solid
 SY = Sludge or slurry
 AL = Aqueous liquid
 OL = Organic liquid
 IL = Immiscible liquid (specify phases, e.g., 90% water, 10% toluene)

7.05 Continued

7JJ	Polyurethane Foam Weather Seal	SO	952,100
7J, 7X, 7NN	Dry Air	GU	UK
7G	Water	AL	6,000
7C, 7D, 7E, 7F	Catalysts, Surfactants and Additives	OL	UK

☐ Mark (X) this box if you attach a continuation sheet.

7.06 Characterize each process stream identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type. (Refer to the CBI instructions for further explanation and an example.)

☐ Process type

a.	b.	c.	d.	e.
Process Stream ID Code	Known Compounds ¹	Concentrations ^{2,3} (% or ppm)	Other Expected Compounds	Estimated Concentrations (% or ppm)
7A, 7V, 7Z, 7CC, 7FF	TDI	99.5%	Hydrolyzable Chloride	0.5%
7B, 7M, 7K, 7L	Polyol	100%	N/A	N/A
7N, 7P, 7R, 7T, 7AA, 7DD, 7GG	Polyol, Tin, Amine Silicone Additive Mixture	100%	N/A	N/A
7C, 7D, 7E, 7F	Tin, Amine, Silicone Surf. Additives	100%	N/A	N/A
7O, 7BB, 7EE, 7HH	Polyol, Water Mixture	100%	N/A	N/A
7J, 7X, 7NN	Dry Air	100%	N/A	N/A
7MM	Methylene Chloride, Catalysts, Additives, TDI, Polyol, Foam	100%	Urea	UK
7II	Polyol, TDI, Water, Catalysts, Additives	100%	N/A	N/A
7Y, 7KK, 7LL	Air, TDI Vapor & Methylene Chloride	100%	Urea	UK
7JJ	Foam Weather Seal	100%	Urea	UK
7H	Polyethylene	100%	N/A	N/A
7I	PVC	100%	N/A	N/A
7G	Water	100%	N/A	N/A

7.06 continued below

☐ Mark (X) this box if you attach a continuation sheet.

¹For each additive package introduced into a process stream, specify the compounds that are present in each additive package, and the concentration of each component. Assign an additive package number to each additive package and list this number in column b. (Refer to the instructions for further explanation and an example. Refer to the glossary for the definition of additive package.)

Additive Package Number	Components of Additive Package	Concentrations (% or ppm)
<u>1</u>		
<u>2</u>		
<u>3</u>		
<u>4</u>		
<u>5</u>		

²Use the following codes to designate how the concentration was determined:

A = Analytical result

E = Engineering judgement/calculation

³Use the following codes to designate how the concentration was measured:

V = Volume

W = Weight

☐ Mark (X) this box if you attach a continuation sheet.

**SECTION 8 RESIDUAL TREATMENT GENERATION, CHARACTERIZATION, TRANSPORTATION, AND
MANAGEMENT**

General Instructions:

For questions 8.04-8.06, provide a separate response for each residual treatment block flow diagram provided in question 8.01, 8.02 or 8.03. Identify the process type from which the information is extracted.

For questions 8.05-8.33, the Stream Identification Codes are those process streams listed in either the Section 7 or Section 8 block flow diagrams which contain residuals for each applicable waste management method.

For questions 8.07-8.33, if residuals are combined before they are handled, list those Stream Identification Codes on the same line.

Questions 8.09-8.33 refer to the waste management activities involving the residuals identified in either the Section 7 or Section 8 block flow diagrams. Not all Stream Identification Codes used in the sample answers (e.g., for the incinerator questions) have corresponding process streams identified in the block flow diagram(s). These Stream Identification codes are for illustrative purposes only.

For questions 8.11-8.33, if you have provided the information requested on one of the EPA Office of Solid Waste surveys listed below within the three years prior to your reporting year, you may submit a copy or reasonable facsimile in lieu of answering those questions which the survey addresses. The applicable surveys are: (1) Hazardous Waste Treatment, Storage, Disposal, and Recycling Survey; (2) Hazardous Waste Generator Survey; or (3) Subtitle D Industrial Facility Mail Survey.

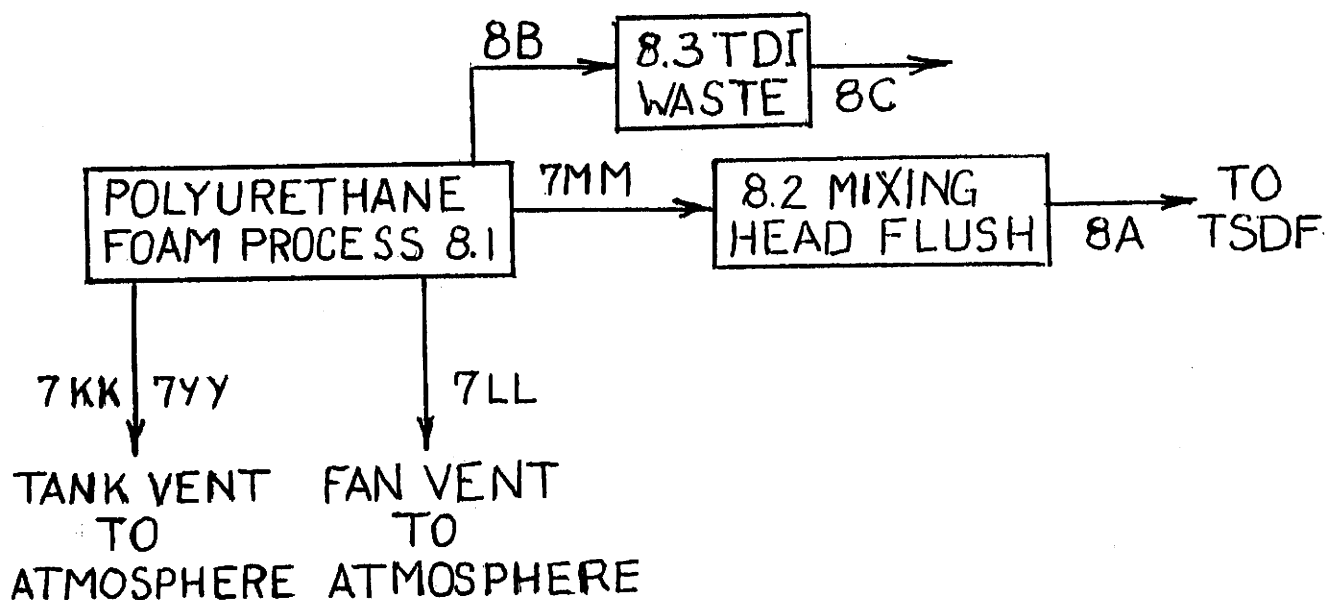
☐ Mark (X) this box if you attach a continuation sheet.

PART A RESIDUAL TREATMENT PROCESS DESCRIPTION

8.01 In accordance with the instructions, provide a residual treatment block flow diagram which describes the treatment process used for residuals identified in question 7.01.

CBI

☐ Process type



☐ Mark (X) this box if you attach a continuation sheet.

8.02 In accordance with the instructions, provide residual treatment block flow diagram(s) which describe each of the treatment processes used for residuals identified in question 7.02.

CBI

☐ Process type

☐ Mark (X) this box if you attach a continuation sheet.

8.05 Characterize each process stream identified in your residual treatment block flow diagram(s). If a residual treatment block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type. (Refer to the instructions for further explanation and an example.)

[illegible]

☐ Mark (X) this box if you attach a continuation sheet.

8.05 (continued)

¹Use the following codes to designate the type of hazardous waste:

I = Ignitable
C = Corrosive
R = Reactive
E = EP toxic
T = Toxic
H = Acutely hazardous

²Use the following codes to designate the physical state of the residual:

GC = Gas (condensable at ambient temperature and pressure)
GU = Gas (uncondensable at ambient temperature and pressure)
SO = Solid
SY = Sludge or slurry
AL = Aqueous liquid
OL = Organic liquid
IL = Immiscible liquid (specify phases, e.g., 90% water, 10% toluene)

8.05 continued below

☐ Mark (X) this box if you attach a continuation sheet.

³For each additive package introduced into a process stream, specify the compounds that are present in each additive package, and the concentration of each component. Assign an additive package number to each additive package and list this number in column d. (Refer to the instructions for further explanation and an example. Refer to the glossary for the definition of additive package.)

<u>Additive Package Number</u>	<u>Components of Additive Package</u>	<u>Concentrations (% or ppm)</u>
<u>1</u>		
<u>2</u>		
<u>3</u>		
<u>4</u>		
<u>5</u>		

⁴Use the following codes to designate how the concentration was determined:

A = Analytical result

E = Engineering judgement/calculation

8.05 continued below

☐ Mark (X) this box if you attach a continuation sheet.

8.05 (continued)

⁵Use the following codes to designate how the concentration was measured:

V = Volume

W = Weight

⁶Specify the analytical test methods used and their detection limits in the table below. Assign a code to each test method used and list those codes in column e.

<u>Code</u>	<u>Method</u>	<u>Detection Limit</u> <u>(± ug/l)</u>
<u>1</u>	<u>N/A</u>	<u></u>
<u>2</u>	<u></u>	<u></u>
<u>3</u>	<u></u>	<u></u>
<u>4</u>	<u></u>	<u></u>
<u>5</u>	<u></u>	<u></u>
<u>6</u>	<u></u>	<u></u>

☐ Mark (X) this box if you attach a continuation sheet.

CBI

[illegible]

☐ Mark (X) this box if you attach a continuation sheet.

EXHIBIT 8-1.
(Refers to question 8.06(b))

WASTE DESCRIPTION CODES

These waste description codes were developed specifically for this survey to supplement the descriptions listed with the RCRA and other waste codes. (These waste description codes are not regulatory definitions.)

WASTE DESCRIPTION CODES FOR HAZARDOUS WASTE DESCRIBED BY A SINGLE RCRA F, K, P, OR U WASTE CODE

A01 Spent solvent (F001-F005, K086)
A02 Other organic liquid (F001-F005, K086)
A03 Still bottom (F001-F005, K086)
A04 Other organic sludge (F001-F005, K086)
A05 Wastewater or aqueous mixture

A06 Contaminated soil or cleanup residue
A07 Other F or K waste, exactly as described*
A08 Concentrated off-spec or discarded product
A09 Empty containers

A10 Incinerator ash
A11 Solidified treatment residue
A12 Other treatment residue (specify in "Facility Notes")
A13 Other untreated waste (specify in "Facility Notes")

*"Exactly as described" means that the waste matches the description of the RCRA waste code.

INORGANIC LIQUIDS—Waste that is primarily inorganic and highly fluid (e.g., aqueous), with low suspended inorganic solids and low organic content

B01 Aqueous waste with low solvents
B02 Aqueous waste with low other toxic organics
B03 Spent acid with metals
B04 Spent acid without metals
B05 Acidic aqueous waste
B06 Caustic solution with metals but no cyanides
B07 Caustic solution with metals and cyanides
B08 Caustic solution with cyanides but no metals
B09 Spent caustic
B10 Caustic aqueous waste
B11 Aqueous waste with reactive sulfides
B12 Aqueous waste with other reactives (e.g., explosives)
B13 Other aqueous waste with high dissolved solids
B14 Other aqueous waste with low dissolved solids
B15 Scrubber water
B16 Leachate
B17 Waste liquid mercury
B18 Other inorganic liquid (specify in "Facility Notes")

INORGANIC SLUDGES—Waste that is primarily inorganic, with moderate-to-high water content and low organic content; pumpable.

B19 Lime sludge without metals
B20 Lime sludge with metals/metal hydroxide sludge
B21 Wastewater treatment sludge with toxic organics
B22 Other wastewater treatment sludge
B23 Untreated plating sludge without cyanides
B24 Untreated plating sludge with cyanides
B25 Other sludge with cyanides
B26 Sludge with reactive sulfides
B27 Sludge with other reactives
B28 Degreasing sludge with metal scale or filings
B29 Air pollution control device sludge (e.g., fly ash, wet scrubber sludge)
B30 Sediment or lagoon dragout contaminated with organics
B31 Sediment or lagoon dragout contaminated with inorganics only

B32 Drilling mud
B33 Asbestos slurry or sludge
B34 Chloride or other brine sludge
B35 Other inorganic sludge (specify in "Facility Notes")

INORGANIC SOLIDS—Waste that is primarily inorganic and solid, with low organic content and low-to-moderate water content; not pumpable.

B36 Soil contaminated with organics
B37 Soil contaminated with inorganics only
B38 Ash, slag, or other residue from incineration of wastes
B39 Other "dry" ash, slag, or thermal residue
B40 "Dry" lime or metal hydroxide solids chemically "fixed"
B41 "Dry" lime or metal hydroxide solids not "fixed"
B42 Metal scale, filings, or scrap
B43 Empty or crushed metal drums or containers
B44 Batteries or battery parts, casings, cores
B45 Spent solid filters or adsorbents
B46 Asbestos solids and debris
B47 Metal-cyanide salts/chemicals
B48 Reactive cyanide salts/chemicals
B49 Reactive sulfide salts/chemicals
B50 Other reactive salts/chemicals
B51 Other metal salts/chemicals
B52 Other waste inorganic chemicals
B53 Lab packs of old chemicals only
B54 Lab packs of debris only
B55 Mixed lab packs
B56 Other inorganic solids (specify in "Facility Notes")

INORGANIC GASES—Waste that is primarily inorganic with a low organic content and is a gas at atmospheric pressure.

B57 Inorganic gases

ORGANIC LIQUIDS—Waste that is primarily organic and is highly fluid, with low inorganic solids content and low-to-moderate water content.

B58 Concentrated solvent-water solution
B59 Halogenated (e.g., chlorinated) solvent
B60 Nonhalogenated solvent

B61 Halogenated/nonhalogenated solvent mixture
B62 Oil-water emulsion or mixture
B63 Waste oil
B64 Concentrated aqueous solution of other organics
B65 Concentrated phenolics
B66 Organic paint, ink, lacquer, or varnish
B67 Adhesives or epoxies
B68 Paint thinner or petroleum distillates
B69 Reactive or polymerizable organic liquid
B70 Other organic liquid (specify in "Facility Notes")

ORGANIC SLUDGES—Waste that is primarily organic, with low-to-moderate inorganic solids content and water content; pumpable.

B71 Still bottoms of halogenated (e.g., chlorinated) solvents or other organic liquids
B72 Still bottoms of nonhalogenated solvents or other organic liquids
B73 Oily sludge
B74 Organic paint or ink sludge
B75 Reactive or polymerizable organics
B76 Resins, tars, or tarry sludge
B77 Biological treatment sludge
B78 Sewage or other untreated biological sludge
B79 Other organic sludge (specify in "Facility Notes")

ORGANIC SOLIDS—Waste that is primarily organic and solid, with low-to-moderate inorganic content and water content; not pumpable.

B80 Halogenated pesticide solid
B81 Nonhalogenated pesticide solid
B82 Solid resins or polymerized organics
B83 Spent carbon
B84 Reactive organic solid
B85 Empty fiber or plastic containers
B86 Lab packs of old chemicals only
B87 Lab packs of debris only
B88 Mixed lab packs
B89 Other halogenated organic solid
B90 Other nonhalogenated organic solid

ORGANIC GASES—Waste that is primarily organic with low-to-moderate inorganic content and is a gas at atmospheric pressure.

B91 Organic gases

[]

No 2

76

8.22 Describe the combustion chamber design parameters for each of the three largest (by capacity) incinerators that are used on-site to burn the residuals identified in CBI your process block or residual treatment block flow diagram(s).

☐

Incinerator	Combustion Chamber Temperature (°C)		Location of Temperature Monitor		Residence Time In Combustion Chamber (seconds)	
	Primary	Secondary	Primary	Secondary	Primary	Secondary
1						
2						
3						

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1
No 2

8.23 Complete the following table for the three largest (by capacity) incinerators that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s).

☐ N/A

Incinerator	Air Pollution Control Device ¹	Types of Emissions Data Available
1		
2		
3		

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1
No 2

¹Use the following codes to designate the air pollution control device:

S = Scrubber (include type of scrubber in parenthesis)
E = Electrostatic precipitator
O = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

PART A EMPLOYMENT AND POTENTIAL EXPOSURE PROFILE

9.01 Mark (X) the appropriate column to indicate whether your company maintains records on the following data elements for hourly and salaried workers. Specify for each data element the year in which you began maintaining records and the number of years the records for that data element are maintained. (Refer to the instructions for further explanation and an example.)

CBI

☐

<u>Data Element</u>	<u>Data are Maintained for:</u>		<u>Year in Which</u>	<u>Number of</u>
	<u>Hourly</u>	<u>Salaried</u>	<u>Data Collection</u>	<u>Years Records</u>
	<u>Workers</u>	<u>Workers</u>	<u>Began</u>	<u>Are Maintained</u>
Date of hire	X	X	1970	Employees Life Time
Age at hire	X	X	1970	"
Work history of individual before employment at your facility	X	X	1970	"
Sex	X	X	1970	"
Race	X	X	1970	"
Job titles	X	X	1970	"
Start date for each job title	X	X	1970	"
End date for each job title	X	X	1970	"
Work area industrial hygiene monitoring data	X	X	1986	"
Personal employee monitoring data	X		1985	"
Employee medical history	X	X	1979	"
Employee smoking history	X	X	1979	"
Accident history	X	X	1960	"
Retirement date	X	X	1957	"
Termination date	X	X	1957	"
Vital status of retirees	X	X	1957	"
Cause of death data				

☐ Mark (X) this box if you attach a continuation sheet.

9.02 In accordance with the instructions, complete the following table for each activity in which you engage.

CBI

☐

a.	b.	c.	d.	e.
<u>Activity</u>	<u>Process Category</u>	<u>Yearly Quantity (kg)</u>	<u>Total Workers</u>	<u>Total Worker-Hours</u>
Manufacture of the listed substance	Enclosed	_____	_____	_____
	Controlled Release	_____	_____	_____
	Open	_____	_____	_____
On-site use as reactant	Enclosed	_____	_____	_____
	Controlled Release	71,500	47	8000
	Open	_____	_____	_____
On-site use as nonreactant	Enclosed	_____	_____	_____
	Controlled Release	_____	_____	_____
	Open	_____	_____	_____
On-site preparation of products	Enclosed	_____	_____	_____
	Controlled Release	_____	_____	_____
	Open	_____	_____	_____

☐ Mark (X) this box if you attach a continuation sheet.

9.03 Provide a descriptive job title for each labor category at your facility that encompasses workers who may potentially come in contact with or be exposed to the listed substance.

CBI

☐

Labor Category

Descriptive Job Title

A

Process Engineer

B

Supervisor

C

Set-Up Man

D

Operator

E

Assistant

F

Maintenance

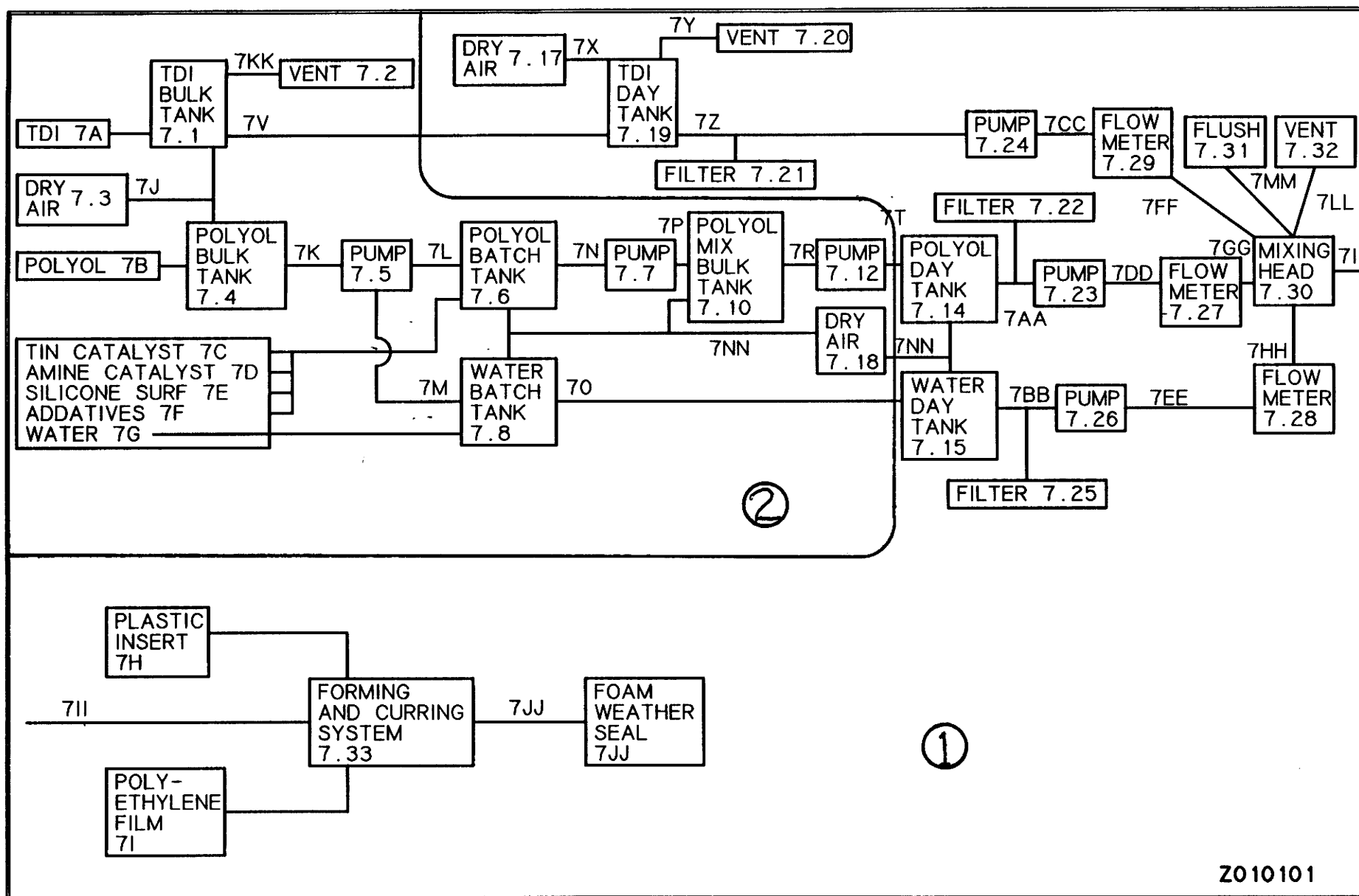
G

H

I

J

☐ Mark (X) this box if you attach a continuation sheet.



9.04 In accordance with the instructions, provide your process block flow diagram(s) and indicate associated work areas.

CBI

☐ Process type

☐ Mark (X) this box if you attach a continuation sheet.

9.05 Describe the various work area(s) shown in question 9.04 that encompass workers who may potentially come in contact with or be exposed to the listed substance. Add any additional areas not shown in the process block flow diagram in question 7.01 or 7.02. Photocopy this question and complete it separately for each process type.

CBI

☐ Process type

Work Area ID

Description of Work Areas and Worker Activities

1

Urethane Room (Operators regular Chemical flow to mixer and change and clean fouled mixing equipment).

2

Bulk Distribution (set-up men receive bulk shipments, pumping equipment serviced by Maintenance)

3

Product development and lab personnel.

4

5

6

7

8

9

10

☐ Mark (X) this box if you attach a continuation sheet.

9.06 Complete the following table for each work area identified in question 9.05, and for each labor category at your facility that encompasses workers who may potentially come in contact with or be exposed to the listed substance. Photocopy this question and complete it separately for each process type and work area.

☐ Process type

Work area

1

Labor Category	Number of Workers Exposed	Mode of Exposure (e.g., direct skin contact)	Physical State of Listed Substance ¹	Average Length of Exposure Per Day ²	Number of Days per Year Exposed
D,E	24	Inhalation	GU	B	250
A,B,C	17	"	"	A	250
F	6	"	"	A	250
D,E	24	Direct Skin Contact	OL	B	250
A,B,C	17	"	"	A	250
F	6	"	"	A	250

¹Use the following codes to designate the physical state of the listed substance at the point of exposure:

GC = Gas (condensable at ambient temperature and pressure)
 GU = Gas (uncondensable at ambient temperature and pressure; includes fumes, vapors, etc.)
 SO = Solid

SY = Sludge or slurry
 AL = Aqueous liquid
 OL = Organic liquid
 IL = Immiscible liquid (specify phases, e.g., 90% water, 10% toluene)

²Use the following codes to designate average length of exposure per day:

A = 15 minutes or less
 B = Greater than 15 minutes, but not exceeding 1 hour
 C = Greater than one hour, but not exceeding 2 hours

D = Greater than 2 hours, but not exceeding 4 hours
 E = Greater than 4 hours, but not exceeding 8 hours
 F = Greater than 8 hours

☐ Mark (X) this box if you attach a continuation sheet.

9.07 For each labor category represented in question 9.06, indicate the 8-hour Time Weighted Average (TWA) exposure levels and the 15-minute peak exposure levels. Photocopy this question and complete it separately for each process type and work area.

CBI

☐ Process type _____

Work area 1 _____

<u>Labor Category</u>	<u>8-hour TWA Exposure Level (ppm, mg/m³, other-specify)</u>	<u>15-Minute Peak Exposure Level (ppm, mg/m³, other-specify)</u>
A	0.001	0.020
B	0.001	0.020
C	0.001	0.020
D	0.001	0.020
E	0.001	0.020
F	0.001	0.020

☐ Mark (X) this box if you attach a continuation sheet.

CBI

[]

2

¹Use the following codes to designate the physical state of the listed substance at the point of exposure:

SY = Sludge or slurry
AL = Aqueous liquid
OL = Organic liquid
IL = Immiscible liquid
(specify phases, e.g.,
90% water, 10% toluene)

A = 15 minutes or less
B = Greater than 15 minutes, but not exceeding 1 hour
C = Greater than one hour, but not exceeding 2 hours

D = Greater than 2 hours, but not exceeding 4 hours
E = Greater than 4 hours, but not exceeding 8 hours
F = Greater than 8 hours

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9.07 For each labor category represented in question 9.06, indicate the 8-hour Time Weighted Average (TWA) exposure levels and the 15-minute peak exposure levels. Photocopy this question and complete it separately for each process type and work area.

CBI

☐ Process type _____

Work area 2 _____

<u>Labor Category</u>	<u>8-hour TWA Exposure Level (ppm, mg/m³, other-specify)</u>	<u>15-Minute Peak Exposure Level (ppm, mg/m³, other-specify)</u>
<u>A,B,C,F</u>	<u>0.001</u>	<u>0.020</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

☐ Mark (X) this box if you attach a continuation sheet.

PART B WORK PLACE MONITORING PROGRAM

9.08 If you monitor worker exposure to the listed substance, complete the following table.

CBI

☐

<u>Sample/Test</u>	<u>Work Area ID</u>	<u>Testing Frequency (per year)</u>	<u>Number of Samples (per test)</u>	<u>Who Samples¹</u>	<u>Analyzed In-House (Y/N)</u>	<u>Number of Years Records Maintained</u>
Personal breathing zone						
General work area (air)	1	Continuous	N/A	N/A	Y	2 Years
Wipe samples						
Adhesive patches						
Blood samples	1	1	1	D	N	10
Urine samples	1	1	1	D	N	10
Respiratory samples	1	1	1	D	N	10
Allergy tests						
Other (specify)						
Other (specify)						
Other (specify)						

¹Use the following codes to designate who takes the monitoring samples:

- A = Plant industrial hygienist
- B = Insurance carrier
- C = OSHA consultant
- D = Other (specify) Contracted Health Services

☐ Mark (X) this box if you attach a continuation sheet.

9.09 For each sample type identified in question 9.08, describe the type of sampling and analytical methodology used for each type of sample.

<input type="checkbox"/> Sample Type	Sampling and Analytical Methodology
General Work Area	MDA 7100, GMD-RIS, Photo-optic, Analysis of Absorbent Colorimetry

9.10 If you conduct personal and/or ambient air monitoring for the listed substance, specify the following information for each equipment type used.

<input type="checkbox"/> Equipment Type ¹	Detection Limit ²	Manufacturer	Averaging Time (hr)	Model Number
E	0.001 A	MDA	8/.25	7100
E	"	GMD	8/.25	RIS

¹Use the following codes to designate personal air monitoring equipment types:

- A = Passive dosimeter
- B = Detector tube
- C = Charcoal filtration tube with pump
- D = Other (specify) _____

Use the following codes to designate ambient air monitoring equipment types:

- E = Stationary monitors located within work area
- F = Stationary monitors located within facility
- G = Stationary monitors located at plant boundary
- H = Mobile monitoring equipment (specify) _____
- I = Other (specify) _____

²Use the following codes to designate detection limit units:

- A = ppm
- B = Fibers/cubic centimeter (f/cc)
- C = Micrograms/cubic meter (µ/m³)

☐ Mark (X) this box if you attach a continuation sheet.

9.11 If you conduct routine medical tests for monitoring the health effects of exposure to the listed substance, specify the type and frequency of the tests.

CBI

☐

Test Description

Frequency
(weekly, monthly, yearly, etc.)

Spirometry

Annually

Chest X-Ray

Bi-Annually

Audiometry

Bi-Annually

Blood

Annually

Urine

Annually

☐ Mark (X) this box if you attach a continuation sheet.

PART C ENGINEERING CONTROLS

9.12 Describe the engineering controls that you use to reduce or eliminate worker exposure to the listed substance. Photocopy this question and complete it separately for each process type and work area.

CBI

☐ Process type _____

Work area 1

<u>Engineering Controls</u>	<u>Used (Y/N)</u>	<u>Year Installed</u>	<u>Upgraded (Y/N)</u>	<u>Year Upgraded</u>
Ventilation:				
Local exhaust	<u>Y</u>	<u>1976</u>	<u>Y</u>	<u>1987</u>
General dilution	<u>N</u>	_____	_____	_____
Other (specify) _____	<u>N</u>	_____	_____	_____
Vessel emission controls	<u>N</u>	_____	_____	_____
Mechanical loading or packaging equipment	<u>N</u>	_____	_____	_____
Other (specify) _____	<u>N</u>	_____	_____	_____

☐ Mark (X) this box if you attach a continuation sheet.

9.12 Describe the engineering controls that you use to reduce or eliminate worker exposure to the listed substance. Photocopy this question and complete it separately for each process type and work area.

☐ Process type

<u>Engineering Controls</u>	<u>Used (Y/N)</u>	<u>Year Installed</u>	<u>Upgraded (Y/N)</u>	<u>Year Upgraded</u>
-----------------------------	-----------------------	---------------------------	---------------------------	--------------------------

	<u>Y</u>	<u>1976</u>	<u>N</u>	<u></u>
Local exhaust				

General dilution	<u>Y</u>	<u>N/A</u>	<u>N</u>	<u>N/A</u>
------------------	----------	------------	----------	------------

Other (specify) _____

Vessel emission controls

Mechanical loading or packaging equipment _____

Other (specify) _____

[illegible]

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9.13 Describe all equipment or process modifications you have made within the 3 years prior to the reporting year that have resulted in a reduction of worker exposure to the listed substance. For each equipment or process modification described, state the percentage reduction in exposure that resulted. Photocopy this question and complete it separately for each process type and work area.

CBI

☐ Process type _____

Work area _____

Equipment or Process Modification	Reduction in Worker Exposure Per Year (%)
Updated Ventilation Older Lines	5%
Improved Ventilation Over Flush	5%
Submerged Pumps in Oil Bath	3%
_____	_____

☐ Mark (X) this box if you attach a continuation sheet.

PART D PERSONAL PROTECTIVE AND SAFETY EQUIPMENT

9.14 Describe the personal protective and safety equipment that your workers wear or use in each work area in order to reduce or eliminate their exposure to the listed substance. Photocopy this question and complete it separately for each process type and work area.

CBI

☐ Process type

Work area

 1 & 2

<u>Equipment Types</u>	<u>Wear or Use (Y/N)</u>
Respirators	<hr/> N <hr/>
Safety goggles/glasses	<hr/> Y <hr/>
Face shields	<hr/> Y <hr/>
Coveralls	<hr/> N <hr/>
Bib aprons	<hr/> N <hr/>
Chemical-resistant gloves	<hr/> Y <hr/>
Other (specify)	
SCBA	<hr/> Y <hr/>
<hr/>	<hr/>

☐ Mark (X) this box if you attach a continuation sheet.

- 9.15 If workers use respirators when working with the listed substance, specify for each process type, the work areas where the respirators are used, the type of respirators used, the average usage, whether or not the respirators were fit tested, and the type and frequency of the fit tests. Photocopy this question and complete it separately for each process type.

CBI

☐ Process type N/A

<u>Work Area</u>	<u>Respirator Type</u>	<u>Average Usage¹</u>	<u>Fit Tested (Y/N)</u>	<u>Type of Fit Test²</u>	<u>Frequency of Fit Tests (per year)</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

¹Use the following codes to designate average usage:

A = Daily
B = Weekly
C = Monthly
D = Once a year
E = Other (specify) _____

²Use the following codes to designate the type of fit test:

QL = Qualitative
QT = Quantitative

☐ Mark (X) this box if you attach a continuation sheet.

- 9.16 Respirator Maintenance Program -- For each type of respirator used when working with the listed substance, specify the frequency of the maintenance activity, and the person who performs the maintenance activity. Photocopy this question and complete it separately for each respirator type.

Respirator type _____

<u>Respirator Maintenance Activity</u>	<u>Frequency¹</u>	<u>Person Performing Activity²</u>
Cleaning	_____	_____
Inspection	_____	_____
Replacement		
Cartridge/Canister	_____	_____
Respirator unit	_____	_____

¹Use the following codes to designate the frequency of maintenance activity:

- A = After each use
B = Weekly
C = Other (specify) _____

²Use the following codes to designate who performs the maintenance activity:

- A = Plant industrial hygienist
B = Supervisor
C = Foreman
D = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

PART E WORK PRACTICES

9.19 Describe all of the work practices and administrative controls used to reduce or eliminate worker exposure to the listed substance (e.g., restrict entrance only to authorized workers, mark areas with warning signs, insure worker detection and monitoring practices, provide worker training programs, etc.). Photocopy this question and complete it separately for each process type and work area.

CBI

☐

Process type _____

Work area 1 & 2

Monitoring equipment is set to alarm at STEL = 5ppb an alarm elicits an investigative response to determine and eliminate the cause of contamination. Semi-annual safety inspections. Corporate policy manual and auditing. Safety & Response equipment is inspected and given regular P.M.

9.20 Indicate (X) how often you perform each housekeeping task used to clean up routine leaks or spills of the listed substance. Photocopy this question and complete it separately for each process type and work area.

Process type _____

Work area 1 and 2

<u>Housekeeping Tasks</u>	<u>Less Than Once Per Day</u>	<u>1-2 Times Per Day</u>	<u>3-4 Times Per Day</u>	<u>More Than 4 Times Per Day</u>
Sweeping	_____	_____	_____	_____
Vacuuming	_____	_____	_____	_____
Water flushing of floors	_____	_____	_____	_____
Other (specify)				
Spill Response is Immediate	_____	_____	_____	X

☐ Mark (X) this box if you attach a continuation sheet.

9.21 Do you have a written medical action plan for responding to routine or emergency exposure to the listed substance?

Routine exposure

Yes 1

No 2

Emergency exposure

Yes 1

No 2

If yes, where are copies of the plan maintained?

Routine exposure: _____

Emergency exposure: _____

9.22 Do you have a written leak and spill cleanup plan that addresses the listed substance? Circle the appropriate response.

Yes 1

No 2

Dept. Supervisor and Engineering
Offices, Regulatory Affairs Office and

If yes, where are copies of the plan maintained? Personnel _____

Has this plan been coordinated with state or local government response organizations?
Circle the appropriate response.

Yes 1

No 2

9.23 Who is responsible for monitoring worker safety at your facility? Circle the appropriate response.

Plant safety specialist 1

Insurance carrier 2

OSHA consultant 3

Other (specify) _____ 4

☐ Mark (X) this box if you attach a continuation sheet.

9.24 Who is responsible for safety and health training at your facility? Circle the appropriate response.

Plant safety specialist 1
Insurance carrier 2
OSHA consultant 3
Other (specify) _____ 4

9.25 Who is responsible for the medical program at your facility? Circle the appropriate response.

Plant physician 1
Consulting physician 2
Plant nurse 3
Consulting nurse 4
Other (specify) _____ 5

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 10 ENVIRONMENTAL RELEASE

General Instructions:

Complete Part E (questions 10.23-10.35) for each non-routine release involving the listed substance that occurred during the reporting year. Report on all releases that are equal to or greater than the listed substance's reportable quantity value, RQ, unless the release is federally permitted as defined in 42 U.S.C. 9601, or is specifically excluded under the definition of release as defined in 40 CFR 302.3(22). Reportable quantities are codified in 40 CFR Part 302. If the listed substance is not a hazardous substance under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and, thus, does not have an RQ, then report releases that exceed 2,270 kg. If such a substance however, is designated as a CERCLA hazardous substance, then report those releases that are equal to or greater than the RQ. The facility may have answered these questions or similar questions under the Agency's Accidental Release Information Program and may already have this information readily available. Assign a number to each release and use this number throughout this part to identify the release. Releases over more than a 24-hour period are not single releases, i.e., the release of a chemical substance equal to or greater than an RQ must be reported as a separate release for each 24-hour period the release exceeds the RQ.

For questions 10.25-10.35, answer the questions for each release identified in question 10.23. Photocopy these questions and complete them separately for each release.

PART A GENERAL INFORMATION

10.01 Where is your facility located? Circle all appropriate responses.

CBI

- ☐ Industrial area ①
- Urban area 2
- Residential area 3
- Agricultural area 4
- Rural area 5
- Adjacent to a park or a recreational area 6
- Within 1 mile of a navigable waterway ⑦
- Within 1 mile of a school, university, hospital, or nursing home facility ⑧
- Within 1 mile of a non-navigable waterway ⑨
- Other (specify) _____ 10

☐ Mark (X) this box if you attach a continuation sheet.

10.02 Specify the exact location of your facility (from central point where process unit is located) in terms of latitude and longitude or Universal Transverse Mercader (UTM) coordinates.

Latitude 43 ° 5 ' 16 "

Longitude 77 ° 33 ' 21 "

UTM coordinates Zone _____, Northing _____, Easting _____

10.03 If you monitor meteorological conditions in the vicinity of your facility, provide the following information.

Average annual precipitation inches/year

Predominant wind direction

10.04 Indicate the depth to groundwater below your facility.

Depth to groundwater meters

10.05 For each on-site activity listed, indicate (Y/N/NA) all routine releases of the listed substance to the environment. (Refer to the instructions for a definition of Y, N, and NA.)

CBI

☐

On-Site Activity

Environmental Release

Air

Water

Land

Manufacturing

N

N

N

Importing

N

N

N

Processing

Y

N

N

Otherwise used

N

N

N

Product or residual storage

N

N

N

Disposal

N

N

N

Transport

N

N

N

☐ Mark (X) this box if you attach a continuation sheet.

10.06 Provide the following information for the listed substance and specify the level of precision for each item. (Refer to the instructions for further explanation and an example.)

CBI

☐

Quantity discharged to the air	_____	kg/yr ± _____ %
Quantity discharged in wastewaters	_____	kg/yr ± _____ %
Quantity managed as other waste in on-site treatment, storage, or disposal units	_____	kg/yr ± _____ %
Quantity managed as other waste in off-site treatment, storage, or disposal units	_____	kg/yr ± _____ %

☐ Mark (X) this box if you attach a continuation sheet.

10.07 Complete the following table for each process stream containing the listed substance as identified in your process block or residual treatment block flow diagram(s). Photocopy this question and complete it separately for each process type.

CBI

Process type _____

☐

Process Stream ID Code	Media Affected ¹	Average Amount of Listed Substance Released ²	Number of Batches/Year	Days of Operation/ Year
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

¹Use the following codes to designate the media affected:

- A = Air
- B = Land
- C = Groundwater
- D = POTW
- E = Navigable waterway
- F = Non-navigable waterway
- G = Other (specify) _____

²Specify the average amount of listed substance released to the environment and use the following codes to designate the units used to measure the release:

- A = kg/day
- B = kg/batch

☐ Mark (X) this box if you attach a continuation sheet.

10.08 Describe the control technologies used to minimize release of the listed substance for each process stream containing the listed substance as identified in your process block or residual treatment block flow diagram(s). Photocopy this question and complete it separately for each process type.

CBI

☐ Process type _____

<u>Stream ID Code</u>	<u>Control Technology</u>	<u>Percent Efficiency</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

☐ Mark (X) this box if you attach a continuation sheet.

PART B RELEASE TO AIR

10.09 Point Source Emissions -- Identify each emission point source containing the listed substance in terms of a Stream ID Code as identified in your process block or residual treatment block flow diagram(s), and provide a description of each point source. Do not include raw material and product storage vents, or fugitive emission sources (e.g., equipment leaks). Photocopy this question and complete it separately for each process type.

CBI

☐

Process type _____

Point Source
ID Code

Description of Emission Point Source

7KK	Tank Vents to Atmosphere
7LL	Fan vent from mixing area to atmosphere
7Y	Tank vent to fan vent to atmosphere

☐ Mark (X) this box if you attach a continuation sheet.

☐ Mark (X) this box if you attach a continuation sheet.

10.10 Emission Characteristics - - Characterize the emissions for each Point Source ID Code identified in question 10.09 by completing the following table.

CRI

☐

Point Source ID Code	Physical State ¹	Average Emissions (kg/day)	Frequency ² (days/yr)	Duration ³ (min/day)	Average Emission Factor ⁴	Maximum Emission Rate (kg/min)	Maximum Emission Rate Frequency (events/yr)	Maximum Emission Rate Duration (min/event)
7LL	G	10.4×10^{-3}	365	1440	0.1×10^{-3}	15×10^{-6}	1500	4 Min.
7KK	G	N/A	4/Year	N/A	N/A	58.9×10^{-6}	4	15
7Y	G	15.4×10^{-3}	250	18	0.1×10^{-3}	3.4×10^{-6}	4500	1 Min.

¹Use the following codes to designate physical state at the point of release:
G = Gas; V = Vapor; P = Particulate; A = Aerosol; O = Other (specify) _____

²Frequency of emission at any level of emission

³Duration of emission at any level of emission

⁴Average Emission Factor — Provide estimated (\pm 25 percent) emission factor (kg of emission per kg of production of listed substance)

10.11 Stack Parameters -- Identify the stack parameters for each Point Source ID Code identified in question 10.09 by completing the following table.

CBI

☐

Point Source ID Code	Stack Height(m)	Stack Inner Diameter (at outlet) (m)	Exhaust Temperature (°C)	Emission Exit Velocity (m/sec)	Building Height(m) ¹	Building Width(m) ²	Vent, Type ³
7LL	7.01	0.43 X 0.61	24	10.75	5.2	168	H
7KK	1	0.06	24	UK	5.2	168	V
7Y	7.01	0.43 X 0.61	24	10.75	5.2	168	H

¹Height of attached or adjacent building

²Width of attached or adjacent building

³Use the following codes to designate vent type:

H = Horizontal

V = Vertical

☐ Mark (X) this box if you attach a continuation sheet.

10.12 If the listed substance is emitted in particulate form, indicate the particle size distribution for each Point Source ID Code identified in question 10.09.
Photocopy this question and complete it separately for each emission point source.

CBI

☐

Point source ID code N/A

Size Range (microns)

Mass Fraction (% ± % precision)

< 1

≥ 1 to < 10

≥ 10 to < 30

≥ 30 to < 50

≥ 50 to < 100

≥ 100 to < 500

≥ 500

Total = 100%

☐ Mark (X) this box if you attach a continuation sheet.

PART C FUGITIVE EMISSIONS

10.13 Equipment Leaks -- Complete the following table by providing the number of equipment types listed which are exposed to the listed substance and which are in service according to the specified weight percent of the listed substance passing through the component. Do this for each process type identified in your process block or residual treatment block flow diagram(s). Do not include equipment types that are not exposed to the listed substance. If this is a batch or intermittently operated process, give an overall percentage of time per year that the process type is exposed to the listed substance. Photocopy this question and complete it separately for each process type.

CBI

☐ Process type
 Percentage of time per year that the listed substance is exposed to this process type %

Equipment Type	Number of Components in Service by Weight Percent of Listed Substance in Process Stream					Greater than 99%
	Less than 5%	5-10%	11-25%	26-75%	76-99%	
Pump seals ¹						
Packed						
Mechanical						
Double mechanical ²						14
Compressor seals ¹						
Flanges						12
Valves						
Gas ³						
Liquid						250
Pressure relief devices ⁴ (Gas or vapor only)						29
Sample connections						
Gas						
Liquid						
Open-ended lines ⁵ (e.g., purge, vent)						
Gas						1
Liquid						

¹List the number of pump and compressor seals, rather than the number of pumps or compressors

10.13 continued on next page

☐ Mark (X) this box if you attach a continuation sheet.

10.13 (continued)

²If double mechanical seals are operated with the barrier (B) fluid at a pressure greater than the pump stuffing box pressure and/or equipped with a sensor (S) that will detect failure of the seal system, the barrier fluid system, or both, indicate with a "B" and/or an "S", respectively

³Conditions existing in the valve during normal operation

4 Report all pressure relief devices in service, including those equipped with control devices

⁵Lines closed during normal operation that would be used during maintenance operations

10.14 Pressure Relief Devices with Controls -- Complete the following table for those pressure relief devices identified in 10.13 to indicate which pressure relief devices in service are controlled. If a pressure relief device is not controlled, enter "None" under column c.

[]

[illegible]

¹Refer to the table in question 10.13 and record the percent range given under the heading entitled "Number of Components in Service by Weight Percent of Listed Substance" (e.g., <5%, 5-10%, 11-25%, etc.)

²The EPA assigns a control efficiency of 100 percent for equipment leaks controlled with rupture discs under normal operating conditions. The EPA assigns a control efficiency of 98 percent for emissions routed to a flare under normal operating conditions

☐ Mark (X) this box if you attach a continuation sheet.

10.15 Equipment Leak Detection -- If a formal leak detection and repair program is in place, complete the following table regarding those leak detection and repair procedures. Photocopy this question and complete it separately for each process type.

CBI

☐ Process type

Equipment Type	Leak Detection Concentration (ppm or mg/m ³) Measured at	Detection Device ¹	Frequency of Leak Detection (per year)	Repairs Initiated (days after detection)	Repairs Completed (days after initiated)
	Inches from Source				
Pump seals					
Packed	0.005 ppm @ 15 ft.	0 ¹ 0 ²	Continuous	0	0
Mechanical					
Double mechanical					
Compressor seals					
Flanges					
Valves					
Gas					
Liquid	0.005 ppm @ 5-50 ft.	0 ²	Continuous	0	0
Pressure relief devices (gas or vapor only)	0.005 ppm @ 15 ft.	0 ²	Continuous	0	0
Sample connections					
Gas					
Liquid					
Open-ended lines					
Gas	None				
Liquid					

¹Use the following codes to designate detection device:

POVA = Portable organic vapor analyzer

FPM = Fixed point monitoring

0 = Other (specify) 1) Pumps are submerged in an isolating and detection media

2) Area vapor monitoring

☐ Mark (X) this box if you attach a continuation sheet.

10.16 Raw Material, Intermediate and Product Storage Emissions - - Complete the following table by providing the information on each liquid raw material, intermediate, and product storage vessel containing the listed substance as identified in your process block or residual treatment block flow diagram(s).

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☐

Vessel Type ¹	Floating Roof ² Seals ²	Composition of Stored Materials ³	Throughput (liters per year)	Vessel Filling Rate (gpm)	Vessel Filling Duration (min)	Vessel Inner Diameter (m)	Vessel Height (m)	Operating Volume (l)	Vessel Emission Controls ⁴	Design Flow Rate ⁵	Vent Diameter (cm)	Control Efficiency (%)	Basis for Estimate ⁶
P	N/A	100	5,107	1.5	2.0	0.45	1	55	N/A	N/A	0.5	N/A	N/A
H	N/A	100	71,500	75	60	5	4.9	17,000	N/A	N/A	5	N/A	N/A

¹Use the following codes to designate vessel type:

- F = Fixed roof
- CIF = Contact internal floating roof
- NCIF = Noncontact internal floating roof
- EFR = External floating roof
- P = Pressure vessel (indicate pressure rating)
- H = Horizontal
- U = Underground

²Use the following codes to designate floating roof seals:

- MS1 = Mechanical shoe, primary
- MS2 = Shoe-mounted secondary
- MS2R = Rim-mounted, secondary
- LM1 = Liquid-mounted resilient filled seal, primary
- LM2 = Rim-mounted shield
- LMW = Weather shield
- VM1 = Vapor mounted resilient filled seal, primary
- VM2 = Rim-mounted secondary
- VMW = Weather shield

³Indicate weight percent of the listed substance. Include the total volatile organic content in parenthesis

⁴Other than Floating roofs

⁵Gas/vapor flow rate the emission control device was designed to handle (specify flow rate units)

⁶Use the following codes to designate basis for estimate of control efficiency:

- C = Calculations
- S = Sampling

PART E NON-ROUTINE RELEASES

10.23 Indicate the date and time when the release occurred and when the release ceased or was stopped. If there were more than six releases, attach a continuation sheet and list all releases.

<u>Release</u>	<u>Date Started</u>	<u>Time (am/pm)</u>	<u>Date Stopped</u>	<u>Time (am/pm)</u>
<u>1</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
<u>2</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>3</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>4</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>5</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>6</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

10.24 Specify the weather conditions at the time of each release.

<u>Release</u>	<u>Wind Speed (km/hr)</u>	<u>Wind Direction</u>	<u>Humidity (%)</u>	<u>Temperature (°C)</u>	<u>Precipitation (Y/N)</u>
<u>1</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>2</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>3</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>4</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>5</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>6</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

☐ Mark (X) this box if you attach a continuation sheet.

10.25 Complete the following information for each media into which the listed substance was released. Any volatile substance that was released to land, but that was expected to volatilize, should be listed as a release to air.

Release No.

<u>Media</u>	<u>Quantity (kg)</u>	<u>Method of Release</u>	<u>Migration Beyond Boundaries (Y/N)</u>	<u>Quantity Migrated (kg)</u>
Land				
Air				
Groundwater				
Surface water				

10.26 Specify the physical state and concentration of the listed substance at the time and point of release.

Release No.

Point of release

Physical state

Concentration (%)

☐ Mark (X) this box if you attach a continuation sheet.

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